

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF WEST NURSERY ROAD AND THE NORTHBOUND MD 295 OFF-RAMP IN ANNE ARUNDEL COUNTY. THE WORK IS NECESSITATED BY THE CONSTRUCTION OF A SIGNALIZED TRIPLE RIGHT TURN MOVEMENT ON THE NB MD 295 OFF-RAMP. W. NURSERY ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA FOUR-PHASE, FULLY-ACTUATED MODE WITH AN EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR SOUTHBOUND W. NURSERY ROAD. THE INTERSECTION OPERATION CHANGE WILL CONSIST OF SIGNALIZING THE FREE RIGHT TURN MOVEMENT FROM THE NORTHBOUND MD 295 OFF RAMP.

CONTROLLER REQUIREMENTS

THE EXISTING EIGHT-PHASE, FULLY-ACTUATED CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED. INSTALL ONE, FOUR CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER IN THE EXISTING BASE MOUNTED CABINET.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	DESCRIPTION
LS	MAINTENANCE OF TRAFFIC
3 CY	TEST PIT EXCAVATION
75 LF	24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKINGS
1 EA	FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER
13 EA	12 INCH LED SIGNAL HEAD SECTION
6 EA	12 INCH OPTICALLY PROGRAMMED SIGNAL HEAD SECTION
3 EA	8 INCH LED SIGNAL HEAD SECTION
15 CY	CONCRETE FOUNDATION FOR SIGNAL
2 EA	27 FT. MAST ARM POLE & 70 FT. MAST ARM
1 EA	27 FT. MAST ARM POLE & 60 FT. MAST ARM
9 EA	ELECTRICAL HANDHOLE
5 EA	LOCATE AND REPLACE HANDHOLE FRAME AND COVER AND ADJUST TO GRADE
50 LF	1 IN. FLEXIBLE, LIQUID-TIGHT CONDUIT - DETECTOR SLEEVE
70 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
110 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
650 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
450 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
1 EA	CONDUIT BEND IN EXISTING FOUNDATION
LS	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT
2 EA	VIDEO DETECTION CAMERA AND CABLE
1700 LF	12-PAIR COMMUNICATION CABLE
2375 LF	ELECTRICAL CABLE 2 - CONDUCTOR (ALUMINUM SHIEDED)
440 LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO. 12 A.W.G.) TRAY CABLE
75 LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO. 14 A.W.G.)
930 LF	ELECTRICAL CABLE 7 - CONDUCTOR (NO. 14 A.W.G.)
270 LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
2 EA	3/4 IN. X 10 FT. GROUND ROD
1400 LF	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
375 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)
2 EA	MICRO-LOOP PROBE
2 EA	NON-INVASIVE MICRO-LOOP PROBE
1 EA	M1-5(3) MOD. (64" X 24") SIGN - MAST ARM MOUNT
6 EA	R3-SR (30" X 36") SIGN - MAST ARM MOUNT
2 EA	R3-6L (30" X 36") SIGN - MAST ARM MOUNT
1 EA	R5-1 (30" X 30") SIGN - POLE MOUNT
1 EA	R10-11B (24" X 24") SIGN - MAST ARM MOUNT
1 EA	R3-1 (24" X 24") SIGN - MAST ARM MOUNT
2 EA	15 FT. LIGHTING ARM WITH 250 WATT HPSV LUMINAIRE

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MRS. KIM TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(410) 841-1019

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(410) 841-1013

MR. MIKE HUBER
UTILITY ENGINEER
(410) 841-1039

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787-7630

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787-7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787-7631

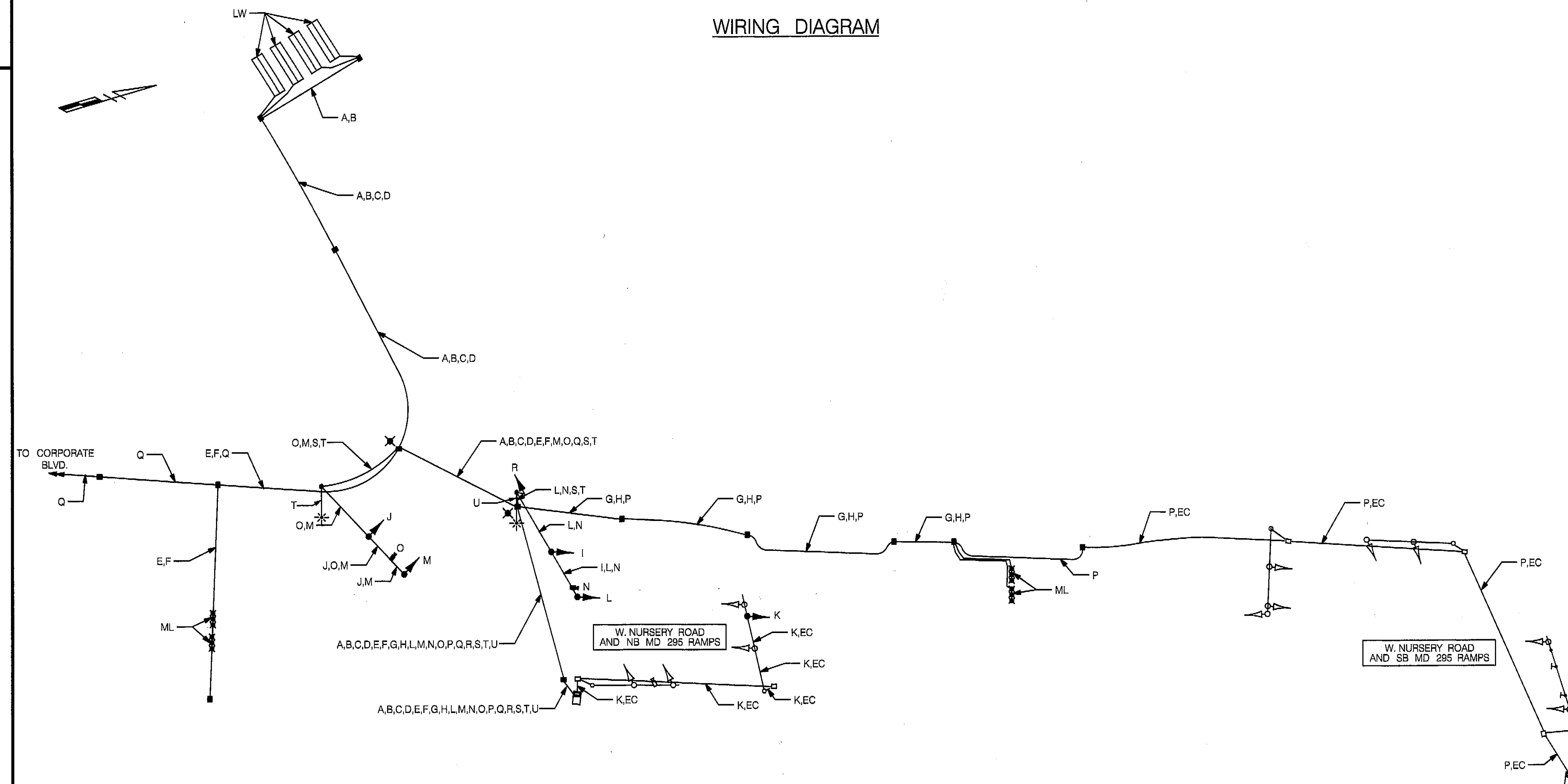
MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787-7668

MR. ED RODENHIZER
CHIEF - SIGNAL OPERATIONS SECTION
(410) 787-7652

PHASE CHART

	1	2	3	4	5	6	7	8	9	10
PHASE 2 & 5	R	R	G	G	G	R	R	R	-R	-R
5 CHANGE	R	R	G	G	G	R	R	R	-R	-R
PHASE 2 & 6	G	G	G	G	G	R	R	R	-R	-R
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	-R	-R
PHASE 4	R	R	R	R	R	G	G	G	-G	-G
4 CHANGE	R	R	R	R	R	Y	Y	Y	-Y	-Y
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLR	FLR	FLR	-FLR	-FLR

WIRING DIAGRAM



WIRING KEY

A-D	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIEDED
E-H	MICRO-LOOP PROBE LEAD-IN
I-J	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
K-M	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
N-O	VIDEO DETECTION CABLE
P-Q	12-PAIR VOICE GRADE INTERCONNECT CABLE
R	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
S	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
T,U	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
LW	LOOP WIRE (NO. 14 A.W.G.)
ML	MICRO-LOOP PROBE
EC	EXISTING CABLE
X	GROUND ROD

TRAFFIC CONCEPTS, INC.

325 Gambrills Road
Suite B
Gambrills, MD 21054
(410) 923-7101

FAX: (410) 923-6473
EMAIL: TRAFFIC@TRAFFIC-CONCEPTS.COM

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DATE: Tuesday, June 22, 2010 AT 09:58 AM



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 295 NB RAMP AND
WEST NURSERY ROAD
LINTHICUM, MARYLAND

GENERAL INFORMATION PLAN

SCALE	NONE	DATE	6-18-10	CONTRACT NO.	BW996/M82
DESIGNED BY	T. ZAYDEL	COUNTY	ANNE ARUNDEL		
DRAWN BY	T. ZAYDEL	LOGMILE	02029514.76		
CHECKED BY	K. SCHMID	T.I.M.S. NO.	K-399		
F.A.P. NO.	NA	TOD NO.			
DRAWING NO.	TS-2176 B-1	SHEET NO.	OF		